1TITLE V: PUBLIC WORKS

Chapter

CHAPTER 56: CROSS-CONNECTION CONTROL

SECTION

§ 56.01 PURPOSE

(a) The purpose of this cross-connection control article is to define the authority of the *Town of Fremont* as the water purveyor in eliminating all cross-connections within its public potable water supply.

(b) This article shall apply to all users connected to the *Town of Fremont* public potable water supply regardless of whether the user is located within or outside the Fremont town limits.

(c) This article will comply with the *Federal Safe Drinking Water Act (PL 93-523),* the *North Carolina State Administrative Code (§15A NCAC 18C),* and the *North Carolina State Building Code (Volume II as amended)* as they pertain to cross-connections with the public water supply.

§ 56.02 OBJECTIVES OF ARTICLE

The specific objectives of this cross-connection control article for the *Town of Fremont* are as follows:

(1) To protect the public potable water supply of the *Town of Fremont* against actual or potential contamination by isolating contaminants or pollutants within the consumer's water system that could, under adverse conditions, backflow through uncontrolled cross-connections into the public water system.

(2) To eliminate or control existing cross connections, actual or potential, between the consumer's potable water system and nonpotable or industrial piping system.

(3) To provide a continuing inspection program of cross-connection control which will systematically and effectively control all actual or potential cross-connections which may be installed in the future.

§ 56.03 RESPONSIBILITIES

(a) *Health agency*

The state department of environment and natural resources has the responsibility for promulgating and enforcing laws, rules, regulations, and policies to be followed in carrying out an effective cross connection control program. The *North Carolina Department of Environmental Quality (NCDEQ)* is also primarily responsible for ensuring that the water purveyor operates the public potable water system free of actual or potential sanitary hazards, including unprotected cross-connections. The state department of environment and natural resources has the further responsibility of insuring that the water purveyor provides an approved water supply at the service connection to the consumer's water system and, further, that he requires the installation, testing, and maintenance of an approved backflow prevention assembly on the service connection when required.

(b) *Water purveyor*

Except as otherwise provided in this article, the water purveyor's the *Town of Fremont* responsibility to ensure a safe water supply begins at the source and includes all of the public water distribution system, including the service connection, and ends at the point of delivery to the consumer's water system. In addition, the water purveyor shall exercise reasonable vigilance to insure that the consumer has taken the proper steps to protect the public potable water system. To insure that the proper precautions are taken, the *Town of Fremont* is required to determine the degree of hazard or potential hazard to the public potable water system; to determine the degree of protection required; and to ensure proper containment protection through an on-going inspection program. When it is determined that a backflow prevention assembly is required for the protection of the public system, the *Town of Fremont* shall require the consumer, at the consumer's expense, to install an approved backflow prevention assembly at each service connection, to test immediately upon installation and thereafter at a frequency as determined by the *Town of Fremont*, to properly repair and maintain such assembly or assemblies and to keep adequate records of each test and subsequent maintenance and repair, including materials and/or replacement parts.

(c) *Plumbing inspection*

The *Wayne County, Plumbing Inspection Department, is responsible for reviewing* building plans and inspecting plumbing as it is installed; they have the explicit responsibility of preventing cross connections from being designed and built into the plumbing system within its jurisdiction. Where the review of building plans suggests or detects the potential for cross-connections being made an integral part of the plumbing system, the plumbing inspector has the responsibility, under the state building code, for requiring that such cross-connections be either eliminated or provided with backflow prevention equipment approved by the state building code. The plumbing inspector's responsibility begins at the point of delivery, downstream of the first installed backflow prevention assembly, and continues throughout the entire length of the consumer's water system. The plan inspector should inquire about the intended use of water at any point where it is suspected that a cross-connection might be made or where one is actually called for by the plans. When such is discovered it shall be mandatory that a suitable, approved backflow prevention assembly approved by the state building code be required by the plans and be properly installed. The primary protection assembly for containment purposes only shall have approval from the *Town of Fremont*, the *North Carolina Building Code*, and the *North Carolina Department of Environmental Quality (NCDEQ)*

(d) *Consumer*

The consumer has the primary responsibility of preventing pollutants and contaminants from entering his potable water system or the public potable water system. The consumer's responsibility starts at the point of delivery from the public potable water system and includes all of his water system. The consumer, at his own expense, shall install, operate, test, and maintain approved backflow prevention assemblies as directed by the *Town of Fremont*. The consumer shall maintain accurate records of tests and repairs made to backflow prevention assemblies and shall maintain such records for a minimum period of three years. The records shall be on forms approved by the *Town of Fremont* and shall include the list of materials or replacement parts used. Following any repair, overhaul, repiping or relocation of an assembly, the consumer shall have it tested to insure that it is in good operating condition and will prevent backflow. Tests, maintenance and repairs of backflow prevention assemblies shall be made by a certified backflow prevention assembly tester.

(e) *Certified backflow prevention assembly testers*

When employed by the consumer to test, repair, overhaul, or maintain backflow prevention assemblies, a backflow prevention assembly tester will have the following responsibilities: The tester will be responsible for making competent inspections and for repairing or overhauling backflow prevention assemblies and making reports of such repair to the consumer and responsible authorities on forms approved by the *Town of Fremont*. The tester shall include the list of materials or replacement parts used. The tester shall be equipped with and be competent to use all the necessary tools, gauges, manometers and other equipment necessary to properly test, repair, and maintain backflow prevention assemblies. It will be the tester's responsibility to insure that original manufactured parts are used in the repair of or replacement of parts in a backflow prevention assembly. It will be the tester's further responsibility not to change the design, material or operational characteristics of an assembly during repair or maintenance without prior approval of the *Town of Fremont*. A certified tester shall perform the work and be responsible for the competency and accuracy of all tests and reports. A certified tester shall provide a copy of all test and repair reports to the consumer and the *Town of Fremont Public Works Department* within ten business days of any completed test or repair work. A certified tester shall maintain such records for a minimum period of three years. All certified backflow prevention assembly testers must obtain and employ backflow prevention assembly test equipment which has been evaluated and/or approved by the *Town of Fremont*. All test equipment shall be registered with the *Town of Fremont Public Works Department*. All test equipment shall be checked for accuracy annually, at a minimum, calibrated, if necessary, and certified to the *Town of Fremont* as to such calibration, employing an accuracy/calibration method acceptable to the *Town of Fremont*. All certified backflow prevention assembly testers must become re-certified every two years through an approved backflow prevention certification program.

§ 56.04 DEFINITIONS

The following words, terms, and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

AIR GAP SEPARATION means a physical separation between the free-flowing discharge end of a potable water supply pipeline and an open or non-pressure receiving vessel. An approved air-gap separation

shall be at least double the diameter of the supply pipe measured vertically above the overflow rim of the receiving vessel, in no case less than one inch (2.54 cm).

APPROVED means, as used in reference to a water supply, a water supply that has been approved by the state department of environment and natural resources; or, as used in reference to air-gap Separation, a pressure vacuum breaker, a double check valve assembly, a double check detector assembly, a reduced pressure principle backflow prevention assembly, a reduced pressure principle detector assembly, or other backflow prevention assemblies or methods means approval by the *Town of Fremont*.

BACKFLOW means the undesirable reversal of water flow or mixtures of water and other liquids, gases, or other substances into the distribution pipes of the consumer or public potable water system from any source or source.

BACKFLOW PREVENTION ASSEMBLY-APPROVED The term "approved backflow prevention assembly" means an assembly used for containment and/or isolation purposes that has been investigated and approved by the *Town of Fremont* and has been shown to meet the design and performance standards of the *American Society of Sanitary Engineering (ASSE)*, the *American Water Works Association (AWWA),* or *the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California*. The approval of backflow prevention assemblies by the *Town of Fremont* is based on a favorable report by the *Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California, r*ecommending such approval. To be approved, an assembly must be readily accessible for in-line testing and maintenance. The *Town of Fremont* reserves the right to evaluate any backflow prevention assembly through a field evaluation process for approval, if necessary, for a period established by the town.

BACKFLOW PREVENTION ASSEMBLY-UNAPPROVED The term "unapproved backflow prevention assembly" means an assembly that has been investigated by the *Town of Fremont* and determined to be unacceptable for installation within the *Town of Fremont* water system. Consideration for disapproval and removal from the "approved list" shall be based upon, but not limited to, the following criteria: (i) Due to poor performance standards (i.e., significant failure rate); (ii) lack of or unavailability of repair parts; and/or, (iii) poor service or response from assembly's factory representative.

BACKFLOW PREVENTION ASSEMBLY-TYPE means an assembly that prevents backflow into a consumer or public potable water system. The type of assembly used should be based on the degree of hazard, either existing or potential. The types are:

(1) Double-check valve assembly (DCVA).
(2) Double-check detector assembly (fire system) (DCDA).
(3) Pressure vacuum breaker (PVB).
(4) Atmospheric vacuum breaker (AVB)
(5) Reduced pressure principle assembly (RP).
(6) Reduced pressure principle detector assembly (fire system). (RPDA).

BACKFLOW PREVENTION ASSEMBLY TESTER-CERTIFIED The term "certified backflow prevention assembly tester" means a person who has proven his competency to the satisfaction of the *Town of Fremont*. Each person who is certified to make competent tests, or to repair, overhaul, and make reports on backflow prevention assemblies shall be knowledgeable of applicable laws, rules, and regulations, shall be a licensed plumber, or have at least two years experience under and be employed by a state licensed plumber or plumbing contractor, or have equivalent qualifications acceptable to the *Town of Fremont*, and must hold a certificate of completion from an approved training program in the testing and

repair of backflow prevention assemblies. Backflow assembly testers who hold a certificate of completion from an approved training program shall be required to successfully complete a practical examination administered by the *Town of Fremont* prior to conducting test and repair work on backflow prevention assemblies in the *Town of Fremont* water system. Backflow assembly testers who hold a certificate of completion from a nonapproved training program shall be required to successfully complete a written and practical examination administered by the *Town of Fremont* prior to conducting test and repair work on backflow prevention assemblies in the *Town of Fremont* water system.

BACKFLOW PREVENTION DEVICE-APPROVED The term "approved backflow prevention device" means a device used for isolation purposes that has been shown to meet the design and performance standards of the *American Society of Sanitary Engineers (ASSE)* and the *American Water Works Association (AWWA)*

BACK-PRESSURE BACKFLOW means any elevation in the consumer water system by pump, elevation of piping, or steam and/or air pressure, above the supply pressure at the point of delivery which would cause, or tend to cause, a reversal of the normal direction of flow.

BACK-SIPHONAGE BACKFLOW means a reversal of the normal flow direction in the pipeline due to a negative pressure (vacuum) being created in the supply line with the backflow source subject to atmospheric pressure.

CHECK VALVE-APPROVED The term "approved check valve" means a check valve that is drip-tight in the normal direction of flow when the inlet pressure is at least one psi and the outlet pressure is zero. The check valve shall permit no leakage in a direction reverse to the normal flow. The closure element (e.g., clapper, poppet, or other design) shall be internally loaded to promote rapid and positive closure. An approved check valve is only one component of an approved backflow prevention assembly, i.e., pressure vacuum breaker, double check valve assembly, double check detector assembly, reduced pressure principle assembly, or reduced pressure detector assembly.

CONSUMER means any person, firm, or corporation using or receiving water from the *Town of Fremont* water system.

CONSUMER'S POTABLE WATER SYSTEM means that a portion of the privately owned potable water system lies between the point of delivery and point of use and/or isolation protection. This system will include all pipes, conduits, tanks, receptacles, fixtures, equipment, and appurtenances used to produce, convey, store, or use potable water.

CONSUMER'S WATER SYSTEM means any water system commencing at the point of delivery and continuing throughout the consumer's plumbing system located on the consumer's premises, whether supplied by public potable water or an auxiliary water supply. The system or systems may be either a potable water system or an industrial piping system.

CONTAINMENT means preventing the impairment of the public potable water supply by installing an approved backflow prevention assembly at the service connection.

CONTAMINATION means an impairment of the quality of the water, which creates a potential or actual hazard to public health by introducing hazardous or toxic substances or through the spread of disease by sewage, industrial fluids, or waste.

CROSS-CONNECTION means any unprotected actual or potential connection or structural arrangement between a public or a consumer's water system and any other source or system through which it is possible to introduce any contamination or pollution other than the intended potable water with which the system is supplied. Bypass arrangements, jumper connections, removable sections, swivel or change-over devices, and other temporary or permanent devices through which or because of which "backflow" can or may occur are considered cross-connections.

DOUBLE CHECK DETECTOR ASSEMBLY means a specially designed assembly composed of a line-size approved double-check valve assembly with a specific bypass water meter and a meter-sized approved double-check valve assembly. The meter shall register (in U.S. gallons or cubic feet) accurately for only very low rates of flow and shall show registration for all rates of flow. This assembly shall only be used to protect against a non-health hazard (i.e., pollutant).

DOUBLE-CHECK VALVE ASSEMBLY means an assembly composed of two independently acting, approved check valves, including tightly closing shutoff valves attached at each end of the assembly and fitted with properly located test cocks. This assembly shall only be used to protect against a non-health hazard (i.e., pollutant).

HAZARD-DEGREE OF The term "degree of hazard" is derived from the evaluation of conditions within a system that can be classified as either a "pollution" (non-health) or a "contamination" (health) hazard.

HAZARD-HEALTH The term "health hazard" means an actual or potential threat of contamination of a physical, hazardous, or toxic nature to the public or consumer's potable water system to such a degree or intensity that there would be a danger to health.

HAZARD-NON-HEALTH The term "non-health hazard" means an actual or potential threat to the quality of the public or the consumer's potable water system. A non-health hazard is one that, if introduced into the public water supply system, could be a nuisance to water customers but would not adversely affect human health.

HAZARD-POLUTION The term "pollution hazard" means an actual or potential threat to the quality or the potability of the public or the consumer's potable water system, but which would not constitute a health or system hazard, as defined. The maximum degree or intensity of pollution to which the potable water system could be degraded under this definition would cause a nuisance or be aesthetically objectionable or could cause minor damage to the system or its appurtenances.

HEALTH AGENCY means the state department of environment and natural resources.

INDUSTRIAL FLUIDS means any fluid or solution that may be chemically, biologically, or otherwise contaminated or polluted in a form or concentration that would constitute a health or non-health hazard if introduced into a public or consumer potable water system. Such fluids may include, but are not limited to: process waters; chemicals in fluid form; acids and alkalis; oils, gases; etc.

INDUSTRIAL PIPING SYSTEM CONSUMER'S The term "consumer's industrial piping system" means any system used by the consumer for transmission of or to confine or store any fluid, solid or gaseous substance other than an approved water supply. Such a system would include all pipes, conduits, tanks, receptacles, fixtures, equipment, and appurtenances used to produce, convey, or store substances which are or may be polluted or contaminated.

ISOLATION means the act of confining a localized hazard within a consumer's water system by installing approved backflow prevention assemblies. Disclaimer: The *Town of Fremont* may make recommendations, upon facility inspection, regarding the usages of isolation devices/assemblies but does not assume or have responsibility whatsoever for such installations.

POINT OF DELIVERY generally means at the customer's property line, adjacent to the public street where the *Town of Fremont* mains are located, or at a point on the customer's property where the meter is located. The customer shall be responsible for all water piping and control devices located on the customer's side of the point of delivery.

POLLUTION means an impairment of the water quality to a degree that does not create an actual hazard to public health but adversely and unreasonably affects the aesthetic qualities of such waters for domestic use.

POTABLE WATER means water from any source which has been investigated by the state department of environment and natural resources and which has been approved for human consumption.

PUBLIC POTABLE WATER SYSTEM means any publicly or privately owned water system operated as a public utility, under a current state department of environment and natural resources permit, to supply water for public consumption or use. This system will include all sources, facilities, and appurtenances between the source and the point of delivery, such as valves, pumps, pipes, conduits, tanks, receptacles, fixtures, equipment, and appurtenances used to produce, convey, treat, or store potable water for public consumption or use.

REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY means an assembly containing within its structure a minimum of two independently acting, approved check valves, together with a hydraulically operating, mechanically independent, pressure differential relief valve located between the check valves and at the same time below the first check valve. The first check valve reduces the supply pressure by a predetermined amount so that during normal flow and at the cessation of normal flow, the pressure between the checks is less than the supply pressure. In case of leakage of either check valve, the pressure differential relief valve shall operate by discharge to the atmosphere to maintain the pressure between the checks less than the supply pressure. The unit shall include tightly closing shutoff valves located at each end of the assembly, and each assembly shall be fitted with properly located test cocks. The assembly is designed to protect against a health hazard (i.e., contaminant).

REDUCED PRESSURE PRINCIPLE DETECTOR ASSEMBLY means a specially designed assembly composed of a line-size approved reduced pressure principle backflow prevention assembly with a specific bypass water meter and a meter-sized approved reduced pressure principle backflow prevention assembly. The meter shall register, in U.S. gallons or cubit feet, accurately for only very low rates of flow and shall show registration for all rates of flow. This assembly shall be used to protect against a health hazard (i.e., contaminant).

SERVICE CONNECTIONS means the terminal end of a service connection from the public potable water system, i.e., where the *Town of Fremont* loses jurisdiction and sanitary control over the water at its point of delivery to the consumer's water system.

VACUUM BREAKER-ATMOSPHERIC TYPE The term "atmospheric vacuum breaker," also known as the "non-pressure type vacuum breaker," means a device containing a float-check, a check seat, and an air inlet port. The flow of water into the body causes the float to close the air inlet port. When the flow of water stops, the float falls and forms a check valve against the back-siphonage and, at the same time,

opens the air inlet port to allow air to enter and satisfy the vacuum. Shutoff valves downstream of AVBs are not allowed. AVBs must always be installed at a minimum of 6" above the highest outlet. An atmospheric vacuum breaker is designed to protect against health hazards, isolation protection only, under a back-siphonage condition only.

VACUUM BREAKER-PRESSURE TYPE The term "pressure vacuum breaker" means an assembly containing an independently operating internally loaded check valve and an independently operating loaded air inlet valve located on the discharge side of the check valve. The assembly is to be equipped with properly located test cocks and tightly closing shutoff valves attached at each end of the assembly. PVBs must always be installed at a minimum of 12" above the highest outlet. This assembly is designed to protect against a health hazard (i.e., contaminant) under a back-siphonage condition only.

WATER PURVEYOR *Water purveyor* means the owner or operator of a public potable water system, providing an approved water supply to the public.

WATER-SUPPLY-APPROVED The term "approved water supply" means any public potable water supply which has been investigated and approved by the permit. In determining what constitutes an approved water supply, the state department of environment and natural resources has reserved the final judgment as to its safety and potability.

WATER SUPPLY-AUXILIARY The term "auxiliary water supply" means any water supply on or available to the premises other than the purveyor's approved public potable water supply. These auxiliary waters may include water from another purveyor's public potable water supply or any natural source such as a well, spring, river, stream, etc., "used water," or industrial fluids. These waters may be polluted, contaminated, or objectionable and constitute an unacceptable water source over which the water purveyor does not have sanitary control.

WATER SUPPLY-UNAPPROVED The term "unapproved water supply" means a water supply that has not been approved for human consumption by the state department of environment and natural resources.

WATER-USED The term "used water" means any water supplied by a water purveyor from a public water system to a consumer's water system after it has passed through the point of delivery and is no longer under the control of the water purveyor.

§ 56.05 RIGHT OF ENTRY

(a) Authorized representatives from the *Town of Fremont* shall have the right to enter, upon presentation of proper credentials and identification, any building, structure, or premises during normal business hours or at any time during the event of an emergency, to perform any duty imposed by this article. Those duties may include sampling and testing of water or inspections and observations of all piping systems connected to the public water supply. Where a user has security measures in force that would require proper identification and clearance before entry into their premises, the user shall make necessary arrangements with the security guards so that upon presentation of suitable identification, *Town of Fremont* personnel will be permitted to enter, without delay, to perform their specific responsibilities. Refusal to allow entry for these purposes may result in the discontinuance of water service.

(b) On request, the consumer shall furnish to the commission any pertinent information regarding the water supply system on such property where cross connections and backflow are deemed possible.

§ 56.06 ELIMINATION OF CROSS-CONNECTIONS; DEGREE OF HAZARD

(a) When cross-connections are found to exist, the owner, his agent, occupant, or tenant will be notified in writing to disconnect the cross-connection within the time limit established by the *Town of Fremont*. The degree of protection required and the maximum time allowed for compliance will be based on the potential degree of hazard to the public water supply system. The maximum time limits are as follows:

(1) Cross connections with private wells or other auxiliary water supplies--immediate disconnection.

(2) All facilities which pose a health hazard to the potable water system must have a containment assembly in the form of a reduced pressure principle backflow prevention assembly within 60 days.

(3) All industrial and commercial facilities not identified as a health hazard shall be considered non-health hazard facilities. All non-health hazard facilities must install, as a minimum containment assembly, a double-check valve assembly within 90 days

(4) If in the judgment of the *Town of Fremont*, an imminent health hazard exists, water service to the building or premises where a cross-connection exists may be terminated unless an air gap is immediately provided or the cross-connection is immediately eliminated.

(5) Based upon a recommendation from the *Town of Fremont*, the consumer is responsible for installing sufficient internal isolation backflow prevention assemblies and/or methods (i.e., air gap, pressure vacuum breakers, reduced pressure principle backflow prevention assembly, double-check valve assembly).

(6) Water mains served by the *Town of Fremont* but not maintained by the *Town of Fremont* should be considered cross-connections, with the degree of hazard to be determined by the *Town of Fremont*. The degree of protection shall be based upon the degree of hazard, as determined by the *Town of Fremont*.

(7) In the event that a *Town of Fremont* cross connection control inspector does not have sufficient access to every portion of a private water system (e.g., classified research and development facilities; federal government property) to allow a complete evaluation of the degree of hazard associated with such private water systems, an approved reduced pressure principle assembly shall be required as a minimum of protection.

(b) No person shall fill special use tanks or tankers containing pesticides, fertilizers, other toxic chemicals, or their residues from the public water system except at a location equipped with an air gap or an approved reduced pressure principle backflow prevention assembly properly installed on the public water supply.

§ 56.07 INSTALLATION OF ASSEMBLIES

(a) All backflow prevention assemblies shall be installed in accordance with the specifications furnished by The *Town of Fremont* and/or the manufacturer's installation instructions and/or in

the latest edition of the state building code, whichever is most restrictive. All assemblies installed above-ground outside must be protected from freezing with an above-ground enclosure that meets the *ASSE 1060* standard. If the assembly is installed outside and intended for commercial, domestic water use, a heat source must be readily available at the assembly.

(b) All new construction plans and specifications, when required by the state building code and the state department of environment and natural resources, shall be made available to the *Town of Fremont* for review and approval and to determine the degree of hazard.

(c) Ownership, testing, and assembly maintenance shall be the customer's responsibility.

(d) All double-check valve assemblies must be installed in accordance with detailed specifications provided by the *Town of Fremont*. Double-check valve assemblies may be installed in a vertical position provided they have been specifically approved by the manufacturer and with prior approval from the *Town of Fremont Public Works Department*, provided the water flow is in an upward direction. All double-check valve assemblies 2 ½" and larger must be installed above ground covered by an above-ground enclosure that meets the *ASSE 1060* standard if they are installed outside. Inside installations must meet *North Carolina Plumbing Code*.

(e) Reduced pressure principle assemblies must be installed in a horizontal position and in a location where no portion of the assembly can become submerged in any substance under any circumstances. The further most bottom portion of the body must be at a minimum of 12" above grade, no more than 4'. Pit and/or below-grade installations are prohibited.

(f) The installation of a backflow prevention assembly that is not approved must be replaced with an approved backflow prevention assembly.

(g) The installer is responsible for making sure a backflow prevention assembly is working properly upon installation and is required to furnish the following information to the *Town of Fremont Public Works Department* within 15 days after a reduced pressure principle backflow preventer (RP), double check valve assembly (DCVA), pressure vacuum breaker (PVB), double check detector assembly (DCDA), or reduced pressure principle detector assembly (RPDA) is installed:

(1) Service address where the assembly is located.
(2) Owner and address, if different from service address.
(3) Description of assembly's location.
(4) Date of installation.
(5) Installer, include name, plumbing company represented, plumber's license number, and project permit number.
(6) Type of assembly, size of the assembly.
(7) Manufacturer, model number, and serial number.
(8) Test results/report.

(h) When it is not possible to interrupt water service, provisions shall be made for a parallel installation of backflow prevention assemblies. The *Town of Fremont* will not accept an unprotected bypass around a backflow preventer when the assembly requires testing, repair, or replacement.

(i) The consumer shall, upon notification, install the appropriate containment assembly not to exceed the following time frame:

Health hazard . . . . . 60 days
Non-health hazard . . . 90 days

(j) Following installation, all reduced pressure principle backflow preventers (RP), double check valve assemblies (DCVA), pressure vacuum breakers (PVB), double check detector assemblies (DCDA), or reduced pressure principle detector assemblies (RPDA) are required to be tested by a certified backflow prevention assembly tester within ten days.

§ 56.08 TESTING AND REPAIR OF ASSEMBLIES

(a) Testing of backflow prevention assemblies shall be made by a certified backflow prevention assembly tester or may be contracted out to the *Town of Fremont Public Works Department* at the customer's expense. Such tests will be conducted upon installation and annually thereafter or at a frequency established by the *Town of Fremont* regulations. A record of all testing and repairs is to be retained by the customer. Copies of the records must be provided to the *Town of Fremont* cross-connection control department within ten business days after any testing and/or repair work is completed.

(b) Any time that repairs to backflow prevention assemblies are deemed necessary, whether through annual or required testing or routine inspection by the owner or by the *Town of Fremont*, these repairs must be completed within a specified time in accordance with the degree of hazard. In no case shall this time period exceed:

(1) Health hazard facilities . . . . . 14 days
(2) Non-health hazard facilities . . . 21 days

(c) All backflow prevention assemblies with test cocks must be tested annually or at the frequency established by the *Town of Fremont* regulations. Testing requires a water shutdown, usually lasting five to 20 minutes. For facilities that require an uninterrupted supply of water, and when it is not possible to provide water service from two separate meters, provisions shall be made for a parallel installation of backflow prevention assemblies.

(d) All certified backflow prevention assembly testers must obtain and employ backflow prevention assembly test equipment that has been evaluated and/or approved by the *Town of Fremont*. All test equipment shall be registered with the *Town of Fremont Public Works Department*. All test equipment shall be checked for accuracy annually, at a minimum, calibrated, if necessary, and certified to the *Town of Fremont* as to such accuracy/calibration, employing a calibration method acceptable to the *Town of Fremont*. *§56.03 (e)*

(e) It shall be unlawful for any customer or certified tester to submit any record to the Town of Fremont which is false or incomplete in any material respect. It shall be unlawful for any customer or certified tester to fail to submit to the *Town of Fremont* any record which is required by this article. Such violations may result in any of the enforcement actions outlined in *§ 56.12 Enforcement*

§ 56.09 FACILITIES REQUIRING PROTECTION

(a) Approved backflow prevention assemblies shall be installed on the service line to any premises that the *Town of Fremont* has identified as having a potential for backflow.

(b) The *Town of Fremont* has identified the following types of facilities or services as having a potential for backflow of nonpotable water into the public water supply system. Therefore, an approved backflow prevention assembly will be required on all such services according to the degree of hazard present. Other types of facilities or services not listed below may also be required to install approved backflow prevention assemblies if determined necessary by the *Town of Fremont*. As a minimum requirement, all commercial services will be required to install a double-check valve assembly unless otherwise listed in this subsection.

DCVA = Double check valve assembly
RP = Reduced pressure principle assembly
DCDA = Double check detector assembly
RPDA = Reduced pressure detector assembly
AG = Air gap
PVB = Pressure vacuum breaker

(1) Aircraft and missile plants: RP

(2) Automotive services stations, dealerships, etc.

a. No health hazard: DCVA
b. Health hazard: RP

(3) Automotive plants: RP

(4) Auxiliary water systems:

a. Approved public/private water supply: DCVA
b. Unapproved public/private water supply: AG
c. Used water and industrial fluids: RP

(5) Bakeries:

a. No health hazard: DCVA
b. Health hazard: RP

(6) Beauty shops/barber shops:

a. No health hazard: DCVA
b. Health hazard: RP

(7) Beverage bottling plants: RP

(8) Breweries: RP

(9) Buildings--Hotels, apartment houses, public and private buildings, or other structures having unprotected cross-connections.

a. (Under five stories) no health hazard: DCVA
b. (Under five stories) health hazard: RP

c. (Over five stories) all: RP

(10) Canneries, packing houses, and rendering plants: RP

(11) Chemical plants--Manufacturing, processing, compounding, or treatment: RP

(12) Chemically contaminated water systems: RP

(13) Commercial car-wash facilities: RP

(14) Commercial greenhouses: RP

(15) Commercial sales establishments (department stores, malls, etc.)

a. No health hazard: DCVA
b. Health hazard: RP

(16) Concrete/asphalt plants: RP

(17) Dairies and cold storage plants: RP

(18) Dye works: RP

(19) Film laboratories: RP

(20) Fire systems:

a. Systems three-fourths inch to two inches:

1. No health hazard: DCVA
2. Health hazard: (booster pumps, foam, antifreeze solution, etc.): RP

b. Systems 2 1/2 inches to ten inches or larger:

1. No health hazard: DCDA
2. Health hazard (booster pumps, foam, antifreeze solution, etc.): RPDA

(21) Hospitals, medical buildings, sanitariums, morgues, mortuaries, autopsy facilities, nursing and convalescent homes, medical clinics, and veterinary hospitals: RP

(22) Industrial facilities:

a. No health hazard: DCVA
b. Health hazard: RP

(23) Laundries:

a. No health hazard: DCVA
b. Health hazard: (i.e., dry cleaners): RP

(24) Lawn irrigation systems (split taps): RP

(25) Metal manufacturing, cleaning, processing, and fabricating plants: RP

(26) Mobile home parks:

a. No health hazard: DCVA
b. Health hazard: RP

(27) Oil and gas production, storage or transmission properties: RP

(28) Paper and paper products plants: RP

(29) Pest control (exterminating and fumigating): RP

(30) Plating plants: RP

(31) Power plants: RP

(32) Radioactive materials or substances plants or facilities handling: RP

(33) Restaurants:

a. No health hazard: DCVA
b. Health hazard: RP

(34) Restricted, classified, or other closed facilities: RP

(35) Rubber plants (natural or synthetic): RP

(36) Sand and gravel plants: RP

(37) Schools and colleges: RP

(38) Sewage and storm drain facilities: RP

(39) Swimming pools: RP

(40) Waterfront facilities and industries: RP

(c) All assemblies and installations shall be subject to inspection and approval by the *Town of Fremont.*

§ 56.10 CONNECTIONS WITH UNAPPROVED SOURCES OF SUPPLY

(a) No person shall connect or cause to be connected any supply of water not approved by the *North Carolina Department of Environmental Quality* to the water system supplied by the *Town of Fremont*. Any such connections allowed by the *Town of Fremont* must be in conformance with the backflow prevention requirements of this article.

(b) In the event of contamination or pollution of a public or consumer potable water system, the consumer shall notify the *Town of Fremont* immediately in order that appropriate measures may be taken to overcome and eliminate the contamination or pollution.

§ 56.11 FIRE PROTECTION SYSTEMS

(a) All connections for fire protection systems connected with the public water system, two inches and smaller, shall be protected with an approved double-check valve assembly as a minimum requirement. An approved reduced pressure principle assembly shall protect all fire systems using toxic additives or booster pumps at the main service connection.

(b) All connections for fire protection systems connected with the public water system greater than two inches shall be protected with an approved double-check detector assembly as a minimum requirement. All fire protection systems using toxic or hazardous additives or booster pumps shall be protected by an approved reduced pressure principle detector assembly at the main service connection.

(c) All existing backflow prevention assemblies 2 1/2 inches and larger installed on fire protection systems that were initially approved by the *Town of Fremont* shall be allowed to remain on the premises as long as they are properly maintained, tested, and repaired as required by this article. If, however, the existing assembly must be replaced once it can no longer be repaired, or in the event of proven water theft through an unmetered source, the consumer shall be required to install an approved double-check detector assembly or reduced pressure principle detector assembly as required by *§56-09 Facilities Requiring Protection*

§ 56.12 ENFORCEMENT

(a) The owner, manager, supervisor, or person in charge of any installation found not to be in compliance with the provisions of this article shall be notified in writing with regard to the corrective action to be taken. The time for compliance shall be in accordance with *§56.12 (g) (1-4).*

(b) The owner, manager, supervisor, or person in charge of any installation which remains in noncompliance after the time prescribed in the initial notification, as outlined in section *§56.12 (g) (1-4)*, shall be considered in violation of this article and may be issued a civil citation by the *Town of Fremont*. The citation shall specify the nature of the violation and the provision of this article violated and further notify the offender that the civil penalty for such violation is as set forth in subsection *(c)* of this section and is to be paid to the *Town of Fremont* within 30 days. If the penalty prescribed in this subsection is not paid within the time allowed, the *Town of Fremont* may initiate a civil action in the nature of a debt and recover the sums set forth in subsection *(c)* of this section plus the cost of the action.

(c) Any offender who shall continue any violation beyond the time limit provided for in the aforementioned notification shall be subject to a civil penalty of up to $1,000.00 per violation. Each day in which a violation of any provision of this article shall occur or continue shall constitute a separate and distinct offense.

(d) If in the judgment of the *Town of Fremont*, any owner, manager, supervisor, or person in charge of any installation found to be in noncompliance with the provisions of this article neglects his

responsibility to correct any violation, such neglect may result in discontinuance of water service until compliance is achieved.

(e) Failure of a customer or certified tester to submit any record required by this article or the submission of falsified reports/records may result in a civil penalty of up to $1,000.00 per violation. If a certified backflow prevention assembly tester submits falsified records to the *Town of Fremont*, the *Town of Fremont* shall take the necessary actions to revoke certification to test backflow prevention assemblies within the potable water system for a time period not to exceed one year. The tester will then be required to complete an approved certification course to acquire a new certification. Falsification made to records/reports after becoming re-certified shall result in the permanent revocation of backflow testing certification, in addition to a civil penalty as provided for in this subsection.

(f) Enforcement of this program shall be administered by the *Public Works Director of the Town of Fremont* or his authorized representative.

(g) Requests for an extension of time shall be made in writing to the *Public Works Director of the Town of Fremont* or his authorized representative. All other appeals shall be made in accordance with the following procedures:

(1) Adjudicatory hearings. A customer assessed a civil penalty under this section shall have the right to an adjudicatory hearing before a hearing officer designated by the *Public Works Director* of the *Town of Fremont* upon making written demand, identifying the specific issues to be contended, to the Public Works Director of the *Town of Fremont* within 30 days following notice of a final decision to assess a civil penalty. Unless such demand is made within the time specified in this subsection, the decision on the civil penalty assessment shall be final and binding.

(2) Appeal hearings. Any decision of the *Town of Fremont* hearing officer made as a result of an adjudicatory hearing held under subsection *(g)(1)* of this section may be appealed by any party to the *Town of Fremont Board of Aldermen/Alderwomen* upon filing a written demand within ten days of receipt of notice of the decision. Hearings held under this section shall be conducted in accordance with the *Town of Fremont* hearing procedures. Failure to make written demand within the time specified in this subsection shall bar further appeal. The *Town of Fremont* shall make a decision on the appeal within 90 days of the date the appeal was filed and shall transmit a written copy of its decision by registered or certified mail.

(3) Official record. When a final decision is issued under *§56-12 (g)(2)* of this section, the *Town of Fremont* shall prepare an official record of the case that includes the following:

a. All notices, motions, and other like pleadings;

b. A copy of all documentary evidence introduced;

c. A certified transcript of all testimony taken if the testimony is transcribed. If testimony is taken and not transcribed, then a narrative summary of any testimony taken;

d. A copy of the final decision of the *Town of Fremont*.

(4) Judicial review. Any customer against whom a final decision of the *Town of Fremont* is entered, pursuant to the hearing procedure under subsection *§56-12 (g)(2)* of this section, may appeal

the order or decision by filing a written petition for judicial review within 30 days after receipt of notice by certified mail of the order or decision to the general court of justice of the county or of the county where the order or decision is effective, along with a copy to the *Town of Fremont*. Within 30 days after receipt of the copy of the petition of judicial review, the *Town of Fremont* shall transmit to the reviewing court the original or a certified copy of the official record, as outlined in subsection *(g)(3)* of this section.

§ 56.13 SEVERABILITY

If any section, subsection, sentence, or clause of this article is adjudged to be unconstitutional or otherwise invalid, such adjudication shall not affect the validity of the remaining portion of this article. It is hereby declared that this article would have been passed, and each section, sentence, or clause thereof, irrespective of the fact that any one or more sections, subsections, sentences, or clauses might be adjudged to be unconstitutional, for any other reason invalid.

ORDINANCE AMENDMENT

Pursuant to an affirmative vote of _____yeas to _____nays, the Town of Fremont Board of Aldermen/Alderwomen at its regular meeting on the 18th day of April 2023.

Adopted this the 18th day of April 2023

_____
W. Darron Flowers, Mayor

Attest:

_____
Shannon Daly, Town Clerk